NOVEL POLYMERIZATION PROCESS USING ZERO-VALENT NICKEL COMPLEX

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Abstract of **JP2008213**

PURPOSE:To obtain a polyarylene in high efficiency by dehalogenating an organic compound having >=2 halogen atoms using a zero-valent nickel complex as a dehalogenation agent and polymerizing the dehalogenated product. CONSTITUTION:A polyarylene is synthesized by reacting (A) a zero-valent nickel complex [e.g., tetrakis(triphenylphosphine)nickel produced by adding nickel chloride, triphenylphosphine and zinc powder to N,N-dimethylformamide and stirring the mixture] with (B) an organic compound having >=2 halogen atoms in the molecule (preferably brominated organic compound or iodinated organic compound such as p-dibromobenzene and 2,5-diiodothiophene), e.g., by dehalogenating and polymerizing the component B according to the reaction formula I and formula II [Ni(O)Ln is zero-valent nickel complex wherein L is neutral ligand and n is the number of the ligand].